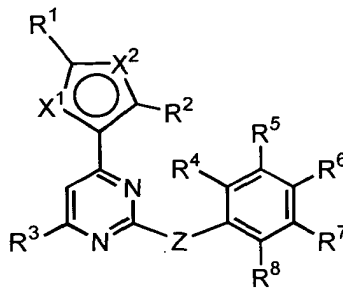


CLAIMS

1. A compound of general formula I:



I

wherein:

one of X¹ and X² is NR¹⁰ and the other of X¹ and X² is CR⁹;

Z is NH, NHCO, NHSO₂, NHCH₂, CH₂, CH₂CH₂, or CH=CH;

R¹, R², R³, R⁹ and R¹⁰ are independently H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO₂, CN, OH, alkoxy, aryloxy, (R''')_nNH₂, (R''')_nNH-R', (R''')_nN-(R')(R''), NH-aryl, N-(aryl)₂, COOH, COO-R', COO-aryl, CONH₂, CONH-R', CON-(R')(R''), CONH-aryl, CON-(aryl)₂, SO₃H, SO₂NH₂, CF₃, CO-R', or CO-aryl, wherein alkyl, aryl, aralkyl and heterocycle groups may be further substituted with one or more groups selected from halogeno, NO₂, CN, OH, O-methyl, NH₂, COOH, CONH₂ and CF₃;

R⁴, R⁵, R⁶, R⁷, and R⁸ are independently from each other H, substituted or unsubstituted lower alkyl, halogeno, NO₂, CN, OH, substituted or unsubstituted alkoxy, NH₂, NH-R', N-(R')(R''), COOH, COO-R', CONH₂, CONH-R', CON-(R')(R''), SO₃H, SO₂NH₂, or CF₃;

wherein R' R'' and R''' are each independently alkyl groups that may be the same or different and n is 0 or 1;

with the proviso that when R¹ and R² are H, X¹ is NH, X² is CH, and R³ is H, the phenyl group is not

- 5 unsubstituted,
 4-ethyl,
 3-methyl,
 3-(1,1,2,2- tetrafluoroethoxy),
 3,4,5-trimethoxy,
10 when the other groups R⁴-R⁸ are H;
 and pharmaceutically acceptable salts thereof.

2. A compound according to claim 1, wherein;

- 15 - X¹ and X² are CR⁹ and NH respectively;
- R¹, R², R³ and R⁹ are each independently selected from H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO₂, CN, OH, alkoxy, aryloxy, (R''')nNH₂, (R''')nNH-R', (R''')nN-(R')(R''), COOH, COO-R', CONH₂, CONH-R', CON-(R')(R''), SO₃H,
- 20 SO₂NH₂, CF₃, and CO-R' wherein alkyl, aryl and aralkyl groups may be further substituted with one or more groups selected from halogeno, NO₂, CN, OH, O-methyl, NH₂, COOH, CONH₂ and CF₃;
- Z is selected from NH, NHSO₂ and NHCH₂;
- 25 - R⁴-R⁸ are each independently selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, N(R')(R''), C₁₋₄ alkyl and substituted C₁₋₄ alkyl.

3. A compound according to claim 1, wherein Z is NH and R³ is H.
4. A compound according to claim 3, wherein R¹, R² and R⁹ are each independently H, halogeno, CN, NO₂, CO(NH₂), (R''')NH(R')(R'') a C₁₋₄ alkyl group or a
5 heterocyclic group.
5. A compound according to claim 4, wherein when R¹ is halogeno, it is selected from chloro or bromo; when R¹ is alkylamino, it is diethylaminomethyl or dimethylaminomethyl; when R¹ is a heterocyclic group it is morpholin-4-ylmethyl or
10 4-methyl-piperazin-1-ylmethyl.
6. A compound according to claim 1, wherein R¹ is H or CN, and R² and R⁹ are both methyl.
- 15 7. A compound according to claim 6, wherein R¹ is H.
8. A compound according to claim 7, wherein R¹ is CN.
9. A compound according to claim 1, wherein;
20 R⁴, R⁵, R⁶, R⁷, and R⁸ are independently from each other H, unsubstituted lower alkyl, halogeno, NO₂, CN, OH, N-(R')(R''), or CF₃;
wherein R' R'' and R''' are each independently alkyl groups that may be the same or different and n is 0 or 1;
- 25 10. A compound according to claim 9, wherein R⁴ to R⁸ are selected independently from H, F, NH₂, NO₂, OH, Cl, Br, I, CN, CH₂OH, CF₃ and dimethylamino.
11. A compound according to claim 9 or 10, wherein R⁴ and R⁸ are both hydrogen.

12. A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(2,4-dimethylpyrrol-3-yl)pyrimidineamines in which the phenyl group is 2-, 3-, 4-or 5-substituted by at least one of F, NH₂, NO₂, OH, Cl, Br, I, CN, CH₂OH, CF₃ or OMe.

5

13. A compound according to claim 12, wherein the phenyl group is mono-substituted by F, NH₂, NO₂, OH, Cl, Br, I, CH₂OH, CN, CF₃ or OMe at any of the 2,3, 4 or 5-positions, or di-substituted by 2,4-difluoro, 3,5-difluoro, 3,4-difluoro, 2,4-dichloro, 3,5-dichloro, 3,4-dichloro or 4-chloro-3-trifluoromethyl.

10

14. A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(3,5-dimethyl-1H-pyrrole-2-carbonitrile)pyrimidineamines in which the phenyl group is 2-, 3- or 4-substituted by at least one of F, NH(CH₃)₂, NO₂, OH, Cl, Br, I or CF₃.

15

15. A compound according to claim 14, wherein the phenyl group is mono-substituted by F, NH(CH₃)₂, NO₂, OH, I or CF₃ at any of the 3 or 4-positions, or di-substituted by 4-methyl-3-nitro, 3-iodo-4-methyl, 4-chloro-3-methyl, 3-hydroxy-4-methyl, 4-fluoro-3-methyl or 4-methyl-3-fluoro.

20

16. A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is mono-substituted by F, NH(CH₃)₂, NO₂, OH, I or CF₃ at the 4-position.

25

17. A compound according to claim 16, wherein the phenyl group is substituted by a fluoro or NH(CH₃)₂ group.

18. A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-halogeno-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is mono-substituted by F, NH(CH₃)₂, NO₂, OH, I or CF₃ at the 3 or 4-positions.
- 5
19. A compound according to claim 18, wherein the phenyl group is substituted by a 4-fluoro or 3-nitro group, the halogeno group being chloro or bromo.
20. A compound according to claim 1, selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-dialkylaminoalkyl-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is mono-substituted by F, NH(CH₃)₂, NO₂, OH, I or CF₃ at the 4-position.
- 10
21. A compound according to claim 20, wherein the phenyl group is substituted by fluoro, the dialkylaminoalkyl group preferably being diethylaminomethyl or dimethylaminomethyl.
- 15
22. A compound according to claim 1, selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-(heterocycle)-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is preferably mono-substituted by F, NH(CH₃)₂, NO₂, OH, I or CF₃ at the 4-position.
- 20
23. A compound according to claim 22, wherein the phenyl group is substituted by fluoro, the heterocycle group being 5-morpholin-4-ylmethyl or 4-methyl-piperazin-1-ylmethyl.
- 25
24. A compound according to claim 1 selected from:
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;
(3,4-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;

- (4-Chloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
(3,5-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
4-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;
3-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;
5 (2,4-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
(2,4-Dichloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine ;
(4-Chloro-3-trifluoromethyl-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-trifluoromethyl-phenyl)-amine;
10 [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-trifluoromethyl-phenyl)-amine;
(3-Chloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
N-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;
(3-Chloro-4-iodo-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
15 [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-fluoro-4-iodo-phenyl)-amine;
3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
20 3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
25 3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(3-Iodo-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

- 4-[2-(4-Chloro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 5 4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(3-Fluoro-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(4-Dimethylamino-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-
- 10 carbonitrile;
- 4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic acid amide;
- [4-(3,5-Dimethyl-1H-pyrrol-2-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- (4-Fluoro-phenyl)-[4-(1,2,4-trimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
- 15 [4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- N-[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;
- [4-(5-Amino-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- 20 [4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
- [4-(5-Chloro-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(5-Diethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-
- 25 phenyl)-amine;
- [4-(2,4-Dimethyl-5-morpholin-4-ylmethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine; and
- {4-[2,4-Dimethyl-5-(4-methyl-piperazin-1-ylmethyl)-1H-pyrrol-3-yl]-pyrimidin-2-yl}-(4-fluoro-phenyl)-amine.

25. A compound according to claim 24 selected from;

- [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
- 5 [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;
- (3,4-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
- (4-Chloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
- (3,5-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
- 4-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;
- 10 3-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;
- [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-trifluoromethyl-phenyl)-amine;
- (3-Chloro-4-iodo-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
- [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-fluoro-4-iodo-phenyl)-amine;
- 3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
- 15 4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
- 20 4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
- 25 4-[2-(3-Iodo-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(4-Chloro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

- 4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 5 4-[2-(3-Fluoro-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(4-Dimethylamino-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic
- 10 acid amide;
- (4-Fluoro-phenyl)-[4-(1,2,4-trimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
- [4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- N-[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;
- 15 [4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
- [4-(5-Chloro-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(5-Diethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- 20 [4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(2,4-Dimethyl-5-morpholin-4-ylmethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine, and
- {4-[2,4-Dimethyl-5-(4-methyl-piperazin-1-ylmethyl)-1H-pyrrol-3-yl]-pyrimidin-2-yl}-(4-fluoro-phenyl)-amine.
- 25
26. A compound according to claim 25 selected from;
- [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-trifluoromethyl-phenyl)-amine;
3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
5 4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-
carbonitrile;
3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-
carbonitrile;
4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
10 4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-
carbonitrile;
3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-
carbonitrile;
4-[2-(3-Iodo-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-
15 carbonitrile;
4-[2-(4-Chloro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-
carbonitrile;
4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-
carbonitrile;
20 4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-
carbonitrile;
4-[2-(3-Fluoro-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-
carbonitrile;
4-[2-(4-Dimethylamino-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-
25 carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic
acid amide;
[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

- N-[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;
- [4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
- 5 [4-(5-Chloro-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(5-Diethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
- [4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine, and
- 10 [4-(2,4-Dimethyl-5-morpholin-4-ylmethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine.

27. A compound according to claim 26 selected from;
- [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
- 15 [4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;
- 3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
- 4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 20 3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
- 4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
- 25 3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
- 4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic acid amide;

5 [4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine,
and

[4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine.

10

28. A compound according to claim 1, wherein;

- X^1 and X^2 are NH and CR^9 respectively;

15 - R^1 , R^2 , R^3 and R^9 are each independently selected from H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO_2 , CN, OH, alkoxy, aryloxy, $(R''')_nNH_2$, $(R''')_nNH-R'$, $(R''')_nN-(R')(R'')$, $COOH$, $COO-R'$, $CONH_2$, $CONH-R'$, $CON-(R')(R'')$, SO_3H , SO_2NH_2 , CF_3 , and $CO-R'$ wherein alkyl, aryl and aralkyl groups may be further substituted with one or more groups selected from halogeno, NO_2 , CN, OH, O-methyl, NH_2 , $COOH$, $CONH_2$ and CF_3 ;

20

- Z is selected from NH, $NHSO_2$ and $NHCH_2$;

25 - R^4 , R^5 and R^8 are each independently selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, $N(R')(R'')$, C_{1-4} alkyl and substituted C_{1-4} alkyl;

- R_6 is selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, $N(R')(R'')$, methyl, propyl, butyl and substituted C_{1-4} alkyl;

- R_7 is selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, carbamoyl, sulfamyl, $N(R')(R'')$ C_{2-4} alkyl and substituted C_{1-4} alkyl.

29. A pharmaceutical composition comprising a compound of claim 1 or a pharmaceutically acceptable salt thereof together with a pharmaceutically acceptable excipient.

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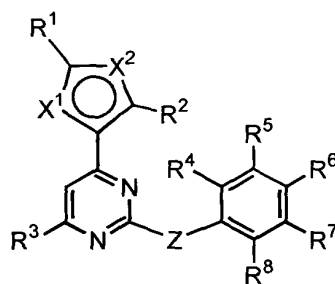
30. Use of a compound of claim 1 or a pharmaceutically acceptable salt thereof in the treatment of a proliferative disorder.

31. Use according to claim 30, wherein the proliferative disorder is cancer or
10 leukaemia.

32. Use according to claim 30 or 31, wherein said compound is administered in an amount sufficient to inhibit at least one CDK enzyme.

15 33. Use according to claim 32, wherein the CDK enzyme is CDK2 and/or CDK4.

34. Use of a compound of formula



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II

wherein:

one of X¹ and X² is NR¹⁰ and the other of X¹ and X² is CR⁹;

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Z is NH, NHCO, NHSO₂, NHCH₂, CH₂, CH₂CH₂, or CH=CH;

R¹, R², R³, R⁹ and R¹⁰ are independently H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO₂, CN, OH, alkoxy, aryloxy, (R''')_nNH₂, (R''')_nNH-R', (R''')_nN-(R')(R''), NH-aryl, N-(aryl)₂, COOH, COO-R', COO-aryl, CONH₂, CONH-R', CON-(R')(R''), CONH-aryl, CON-(aryl)₂, SO₃H, SO₂NH₂, CF₃, CO-R', or CO-aryl, wherein alkyl, aryl, aralkyl and heterocycle groups may be further substituted with one or more groups selected from halogeno, NO₂, CN, OH, O-methyl, NH₂, COOH, CONH₂ and CF₃;

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R⁴, R⁵, R⁶, R⁷, and R⁸ are independently from each other H, substituted or unsubstituted lower alkyl, halogeno, NO₂, CN, OH, substituted or unsubstituted alkoxy, NH₂, NH-R', N-(R')(R''), COOH, COO-R', CONH₂, CONH-R', CON-(R')(R''), SO₃H, SO₂NH₂, or CF₃;

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wherein R', R'' and R''' are each independently alkyl groups that may be the same or different and n is 0 or 1;

with the proviso that when R¹ and R² are H, X¹ is NH, X² is CH, and R³ is H, the phenyl group is not

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3-(1,1,2,2-tetrafluoroethoxy), or

3,4,5-trimethoxy,

when the other groups R⁴-R⁸ are H;

and pharmaceutically acceptable salts thereof;

in the manufacture of a medicament for use in the treatment of a proliferative disease.

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35. A method of treating a subject for a proliferative disorder, comprising administering to a subject a compound of claim 1 or a pharmaceutically acceptable salt thereof, such that said proliferative disorder in said subject is treated.

36. The method of claim 35, wherein the proliferative disorder is cancer or leukaemia.

37. The method of claim 35, wherein said compound is administered in an amount sufficient to inhibit at least one CDK enzyme.

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38. The method of 37, wherein the CDK enzyme is CDK2 and/or CDK4.